I. AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) An audio system comprising a configuration, the configuration selected based on a method comprising:

generating acoustic signals from at least one loudspeaker placed at potential loudspeaker locations;

recording transfer functions for the generated acoustic signals at a plurality of listening positions where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response;

determining potential configurations of the audio system;

modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of at least two of the plurality of listening positions for each of the potential configurations of the audio system, the predicted transfer functions representing simulations for the potential configurations of the audio system;

accessing a criterion by which to statistically analyze the predicted transfer functions;

statistically analyzing using the criterion across at least one frequency of the predicted transfer functions for the at least two of the plurality of listening positions; and

selecting a configuration to improve for the criterion at the at least two of the plurality of listening positions based on the statistical analysis.

2. (Previously Presented) The audio system of claim 1, where the configuration comprises at least one parameter that affects acoustical performance of the audio system;

where determining potential configurations comprises determining potential values for the parameter;

where modifying the transfer functions comprises modifying the transfer functions based on the potential values for the parameter; and

where selecting a configuration comprises selecting a value for the parameter.

3. (Previously Presented) The audio system of claim 2, where determining potential values for the parameter comprises inputting potential values for the parameter.

4. (Previously Presented) The audio system of claim 2, where the configuration comprises at least two parameters that affect acoustical performance of the audio system; and

where determining potential configurations of the audio system comprises determining potential combinations of potential values of the parameters.

5. (Previously Presented) The audio system of claim 2, where the parameter is selected from the group consisting of positions of the loudspeakers, number of loudspeakers, types of loudspeakers, and correction factors.

6. (Previously Presented) The audio system of claim 2, where the parameter comprises positions of the loudspeakers; and

where determining potential configurations comprises:

determining potential positions of the loudspeakers; and

generating potential combinations of speakers based on the potential positions of the loudspeakers; and

where modifying the transfer functions comprises superpositioning of the transfer functions based on the potential combinations of speakers.

7. (Previously Presented) The audio system of claim 6, where the at least one parameter further comprises correction factors; and

where the potential configurations are based on the potential combinations of speakers and the potential values for the correction factors.

8. (Previously Presented) The audio system of claim 1, where recording transfer functions at a plurality of listening positions comprises placing a microphone at each of the listening positions and recording the transfer functions.

9. (Canceled)

10. (Previously Presented) The audio system of claim 9, where the plurality of frequencies are less than 120 Hz.

11. (Previously Presented) The audio system of claim 1, where the statistical analysis is selected from the group consisting of mean spatial variance, mean spatial standard deviation, mean spatial envelope, and mean spatial maximum average.

12. (Previously Presented) The audio system of claim 1, where the statistical analysis comprises mean spatial variance.

13. (Previously Presented) The audio system of claim 12, where the mean spatial variance is based on an average of spatial variance across the listening positions for a plurality of frequencies.

14. (Previously Presented) The audio system of claim 1, where selecting a configuration comprises automatically recommending a plurality of potential configurations and manually selecting one of the plurality of potential configurations.

15. (Previously Presented) A machine readable medium having software for causing a machine to execute a method, the machine readable medium comprising:

instructions for generating acoustic signals from at least one loudspeaker placed at potential loudspeaker locations;

instructions for recording transfer functions for the generated acoustic signals at a plurality of listening positions where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response;

instructions for determining potential configurations of the audio system;

instructions for modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of at least two of the plurality of listening positions for each of the potential configurations of the audio system, the predicted transfer functions representing simulations for the potential configurations of the audio system;

instructions for accessing a criterion by which to statistically analyze the predicted transfer functions;

instructions for statistically analyzing using the criterion across at least one frequency of the predicted transfer functions for the at least two of the plurality of listening positions.

16. (Canceled)

17. (Original) The machine readable medium of claim 15, where the instructions for determining potential configurations comprise instructions for inputting potential values for at least one parameter for the audio system.

18. (Original) The machine readable medium of claim 17, where the audio system comprises at least two parameters that affect acoustical performance; and

where the instructions for determining potential configurations of the audio system comprise instructions for determining potential combinations of potential values of the parameters.

19. (Original) The machine readable medium of claim 15, where the statistical analysis is across a plurality of frequencies of the predicted transfer functions.

20. (Original) The machine readable medium of claim 19, where the plurality of frequencies are less than 120 Hz.

21. (Original) The machine readable medium of claim 15, where the statistical analysis is selected from the group consisting of mean spatial variance, mean spatial standard deviation, mean spatial envelope, and mean spatial maximum average.

22. (Original) The machine readable medium of claim 15, where the statistical analysis comprises mean spatial variance.

23. (Original) The machine readable medium of claim 22, where the mean spatial variance is based on an average of spatial variance across the listening positions for a plurality of frequencies.

24. (Canceled)

25. (Previously Presented) A computer system for analyzing potential configurations in an audio system, the computer system comprising:

a memory storing transfer functions recorded at a plurality of listening positions in the audio system; and

a processor in communication with the memory, the processor:

determining potential configurations of the audio system,

modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of at least two of the plurality of listening positions for each of the potential configurations of the audio system, the predicted transfer functions representing simulations for the potential configurations of the audio system where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response,

accessing a criterion by which to statistically analyze the predicted transfer functions,

statistically analyzing using the criterion across at least one frequency of the predicted transfer functions for the at least two of the plurality of listening positions, and

recommending at least one of the potential configurations to improve for the criterion at the at least two of the plurality of listening positions based on the statistical analysis.

26. (Original) The computer system of claim 25, where the statistical analysis comprises mean spatial variance.

27. (Previously Presented) Method for selecting a configuration for an audio system, the method comprising:

recording transfer functions using at least an audio sensor at a plurality of listening positions in the audio system;

determining potential configurations of the audio system;

modifying the transfer functions where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response, using at least one processor, based on the potential configurations so that predicted transfer functions are generated at least two of the plurality of listening positions for each of the potential configurations of the audio system, the predicted transfer functions representing simulations for the potential configurations of the audio system;

accessing a criterion from a memory by which to statistically analyze the predicted transfer functions;

statistically analyzing, using the at least one processor, the predicted transfer functions using the criterion at the at least two of the plurality of listening positions; and

selecting a configuration to improve for the criterion at the at least two of the plurality of listening positions based on the statistical analysis.

28. (Previously Presented) The method of claim 27, where the configuration comprises at least one parameter that affects acoustical performance of the audio system;

where determining potential configurations comprises determining potential values for the parameter;

where modifying the transfer functions comprises modifying the transfer functions based on the potential values for the parameter; and

where selecting a configuration comprises selecting a value for the parameter in order to optimize the at least one criterion across the at least two of the plurality of listening positions.

29. (Previously Presented) The method of claim 28, where the parameter is selected from the group consisting of positions of loudspeakers, number of loudspeakers, types of loudspeakers, and correction factors.

30. (Original) The method of claim 27, where the transfer functions measure at least one acoustical property of the audio system.

31. (Original) The method of claim 30, where the transfer function measures amplitude and phase at a single frequency or multiple frequencies.

32. (Previously Presented) The method of claim 27, where the audio system comprises a subwoofer.

33. (Canceled)

34. (Previously Presented) The method of claim 27, where the configuration comprises potential loudspeaker locations;

where recording transfer functions comprises generating acoustic signals from the loudspeaker placed at each of the potential loudspeaker locations; and recording the transfer functions for the plurality of listening positions for the generated acoustic signals; and

where selecting a configuration based on the statistical analysis comprises selecting less than all of the potential loudspeaker locations for placement of loudspeakers in the audio system.

35. (Original) The method of claim 34, where generating acoustic signals from the loudspeaker placed at each of the potential loudspeaker locations comprises placing the loudspeaker at a first potential position and controlling the audio system to generate an acoustic signal; and

where recording transfer functions at the plurality of listening positions comprises placing a microphone at a first listening position and recording the acoustic signal and placing the microphone at a second listening position and recording the acoustic signal.

36. (Canceled)

37. (Original) The method of claim 28, where determining potential values for the parameter comprises selecting a discrete number of potential configurations.

38. (Original) The method of claim 28, where determining potential values for the parameter comprises selecting a range of potential values.

39. (Original) The method of claim 28, where the parameter comprises loudspeaker locations;

where recording transfer functions comprises recording transfer functions at the listening positions with the loudspeaker in each of the plurality of potential loudspeaker locations;

where determining potential configurations comprises inputting a plurality of potential loudspeaker locations and determining potential combinations of the potential loudspeaker locations; and

where modifying the transfer functions comprises combining the transfer functions for the listening positions for each of the potential combinations of loudspeaker locations to generate the predicted transfer functions.

40. (Original) The method of claim 39, where the plurality of loudspeaker locations comprises a first potential loudspeaker location and a second potential loudspeaker location;

where recording transfer functions comprises:

recording a first transfer function at a first listening position with the loudspeaker at the first potential loudspeaker location;

recording a second transfer function at the first listening position with the loudspeaker at the second potential loudspeaker location;

recording a third transfer function at a second listening position with the loudspeaker at the first potential loudspeaker location; and

recording a fourth transfer function at the second listening position with the loudspeaker at the second potential loudspeaker location;

where combining the transfer functions comprises:

combining the first transfer function and the second transfer function; and

combining the third transfer function and the fourth transfer function;

where statistically analyzing the predicted transfer functions is based on the first transfer function, the second transfer function, the third transfer function, the fourth transfer function, the combined first and second transfer function and the combined third and fourth transfer function.

41. (Original) The method of claim 40, where combining the first transfer function and the second transfer function comprises performing superposition of the first transfer function with the second transfer function; and

where combining the third transfer function and the fourth transfer function comprises performing superposition of the third transfer function with the fourth transfer function.

42. (Previously Presented) The method of claim 27, where the configuration comprises number of loudspeakers;

where potential configurations comprise potential numbers of loudspeakers;

where modifying the transfer functions based on the potential configurations comprises:

determining potential combinations of loudspeakers at potential loudspeaker locations, the potential combinations being equal to at least one of the potential number of loudspeakers; and

combining the transfer functions for each of the potential combinations to generate predicted transfer functions for each of the potential combinations, and where selecting one of the potential numbers of speakers based on the statistical analysis comprises.

43. (Previously Presented) The method of claim 28, where the parameter comprises types of loudspeakers;

where determining potential configurations comprises determining combinations of potential types of loudspeakers at potential loudspeaker locations;

where recording transfer functions comprises recording transfer functions at the listening positions with each potential type of loudspeaker in each of the plurality of potential loudspeaker locations; and

where modifying the transfer functions based on the potential configurations comprises combining the transfer functions for the listening positions for each of the combinations to generate predicted transfer functions.

44. (Original) The method of claim 43, where the types of loudspeakers comprises loudspeakers with different qualities.

45. (Original) The method of claim 44, where the potential types of loudspeakers comprise a dipole loudspeaker and a monopole loudspeaker.

46. (Original) The method of claim 27, where the configuration comprises correction factors;

where potential configurations comprise potential values for the correction factors; and

where modifying the transfer functions based on the potential configurations comprises modifying the transfer functions for potential values for the correction factors to generate predicted transfer functions for each of the potential values.

47. (Original) The method of claim 46, where the correction factors comprise gain, delay, and equalization.

48. (Previously Presented) The method of claim 27, where the configuration comprises a plurality of parameters;

where determining potential configurations comprises determining potential values for the plurality of parameters and determining potential combinations of the potential values of the parameters;

where recording transfer functions comprises recording transfer functions at the listening positions with each type of potential loudspeaker in each of a plurality of potential loudspeaker locations; and

where modifying the transfer functions based on the potential configurations comprises modifying the transfer functions based on the potential combinations to generate predicted transfer functions.

49. (Original) The method of claim 27, where statistically analyzing the predicted transfer functions comprises analyzing frequencies of the predicted transfer functions below about 120 Hz.

50. (Canceled)

51. (Canceled)

52. (Previously Presented) The method of claim 27, where statistically analyzing the predicted transfer functions comprises analyzing the predicted transfer functions for each of the plurality of listening positions.

53. (Previously Presented) The method of claim 27, where the statistical analysis indicates consistency of the predicted transfer functions across the plurality of listening positions.

54. (Previously Presented) Method for selecting a configuration for an audio system, the method comprising:

recording transfer functions at a plurality of listening positions in the audio system where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response;

determining potential configurations of the audio system;

modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of at least two of the plurality of listening positions for each of the potential configurations of the audio system, the predicted transfer functions representing simulations for the potential configurations of the audio system;

accessing a criterion by which to statistically analyze the predicted transfer functions;

statistically analyzing the predicted transfer functions using the criterion; and

selecting a configuration based on the statistical analysis to improve for the criterion at the at least two of the plurality of listening positions,

where the statistical analysis is selected from the group consisting of mean spatial variance, mean spatial standard deviation, mean spatial envelope, and mean spatial maximum average.

55. (Previously Presented) The method of claim 27, where the statistical analysis comprises mean spatial variance.

56. (Original) The method of claim 55, where the mean spatial variance is based on an average of spatial variance across the listening positions for a plurality of frequencies.

57. (Original) The method of claim 27, where the statistical analysis indicates flatness of the predicted transfer functions.

58. (Previously Presented) The method of claim 27, where the statistical analysis is selected from the group consisting of variance of spatial average, standard deviation of the spatial average, envelope of the spatial average, and variance of the spatial minimum.

59. (Original) The method of claim 27, where the statistical analysis is selected from the group consisting of amplitude variance and amplitude standard deviation.

60. (Previously Presented) The method of claim 27, where the statistical analysis indicates differences in overall sound pressure level among the plurality of listening positions for the predicted transfer functions.

61. (Previously Presented) The method of claim 27, where the statistical analysis is selected from the group consisting of variance of mean levels; standard deviation of mean levels, envelope of mean levels, and maximum average of mean levels.

62. (Previously Presented) Method for selecting a configuration for an audio system, the method comprising:

recording transfer functions a plurality of listening positions in the audio system where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response;

determining potential configurations of the audio system;

modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of at least two of the plurality of listening positions for each of the potential configurations of the audio, system, the predicted transfer functions representing simulations for the potential configurations of the audio system;

accessing a criterion comprising efficiency by which to statistically analyze the predicted transfer functions;

statistically analyzing the predicted transfer functions using the criterion; and

selecting a configuration based on the statistical analysis to improve for the efficiency at the at least two of the plurality of listening positions,

where the statistical analysis indicates efficiency of the predicted transfer functions at the plurality of listening positions.

63. (Original) The method of claim 62, where efficiency is examined for predetermined frequencies.

64. (Original) The method of claim 63, where selecting a configuration based on the statistical analysis comprises selecting a value for a parameter to increase efficiency of the audio system in the predetermined frequencies.

65. (Original) The method of claim 64, where the parameter comprises volume correction; and

where selecting a value to increase efficiency comprises selecting a value that decreases the volume of at least one of the loudspeakers in the audio system.

66. (Original) The method of claim 27, where the statistical analysis comprises acoustic efficiency.

67. (Original) The method of claim 66, where the acoustic efficiency comprises a mean overall level divided by a total drive level for the predicted transfer function.

68. (Original) The method of claim 66, where selecting a configuration based on the statistical analysis comprises selecting a value for a parameter to increase acoustic efficiency of the audio system.

69. (Original) The method of claim 68, where the parameter comprises volume correction; and

where selecting a value to increase acoustic efficiency comprises selecting a value that decreases the volume of at least one of the loudspeakers in the audio system.

70. (Previously Presented) The method of claim 27, where the statistical analysis indicates output of predicted transfer functions at the multiple listening positions.

71. (Original) The method of claim 70, where output is examined for predetermined frequencies.

72. (Original) The method of claim 71, where selecting a configuration based on the statistical analysis comprises selecting a value for a parameter to increase output of the audio system in the predetermined frequencies.

73. (Original) The method of claim 72, where the parameter comprises volume correction; and

where selecting a value to increase output comprises selecting a value that decreases the volume of at least one of the loudspeakers in the audio system.

74. (Previously Presented) The method of claim 27, where the statistical analysis comprises mean overall level.

75. (Canceled)

76. (Original) The method of claim 27, where selecting a configuration comprises manually selecting a configuration.

77. (Original) The method of claim 27, where selecting a configuration comprises automatically selecting a configuration.

78. (Original) The method of claim 77, where a plurality of statistical analyses are performed; and

where selecting a configuration is based on weighting the plurality of statistical analyses.

79. (Original) The method of claim 27, where the statistical analysis ranks the predicted transfer functions based on at least one metric, and

where selecting a configuration comprises selecting a configuration based on the ranking.

80. (Original) The method of claim 79, where selecting a configuration based on the ranking comprises selecting an optimal value based on a highest ranked predicted transfer function.

81. (Previously Presented) A machine readable medium having software for causing a machine to execute a method, the machine readable medium comprising:

instructions for storing transfer functions recorded at a plurality of listening positions in an audio system where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response;

instructions for determining potential configurations for the audio system;

instructions for modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at least two of the plurality of listening positions, the predicted transfer functions representing simulations for the potential configurations of the audio system;

accessing a criterion by which to statistically analyze the predicted transfer functions; and

instructions for statistically analyzing the predicted transfer functions using the criterion at the at least two of the plurality of listening positions.

82. (Original) The machine readable medium of claim 81, where the instructions for determining potential configurations comprise instructions for receiving input for potential values of parameters for the audio system.

83. (Previously Presented) The machine readable medium of claim 81, where the potential configurations comprise a plurality of potential loudspeaker locations;

where the transfer functions are recorded with the loudspeaker in each of the plurality of potential loudspeaker locations;

where the instructions for determining potential configurations for the audio system comprise instructions for determining potential combinations of the potential loudspeaker locations; and

where the instructions for modifying the transfer functions based on the potential configurations comprise instructions for combining the transfer functions for the listening positions for each of the potential combinations of loudspeaker locations to generate predicted transfer functions.

84. (Original) The machine readable medium of claim 81, where the potential configurations comprise potential values for the correction factors;

where the instructions for modifying the transfer functions based on the potential configurations comprise instructions for modifying the transfer functions for potential values for the correction factors to generate predicted transfer functions for each of the potential values.

85. (Original) The machine readable medium of claim 84, where the correction factors comprise gain, delay, and equalization.

86. (Previously Presented) The machine readable medium of claim 81, where the configuration comprises a plurality of parameters;

where the instructions for determining potential configurations comprise instructions for inputting potential values for the plurality of parameters and instructions for determining potential combinations of the potential values of the parameters;

where the instructions for recording transfer functions comprise instructions for recording transfer functions at each of the plurality of listening positions with each type of potential loudspeaker in each of a plurality of potential loudspeaker locations; and

where the instructions for modifying the transfer functions based on the potential configurations comprise instructions for modifying the transfer functions based on the potential combinations to generate predicted transfer functions for the potential combinations.

87. (Original) The machine readable medium of claim 81, where the instructions for statistically analyzing the predicted transfer functions comprise instructions for analyzing frequencies of the predicted transfer functions below about 120 Hz.

88. (Canceled)

89. (Canceled)

90. (Canceled)

91. (Previously Presented) The machine readable medium of claim 81, where the statistical analysis indicates flatness of the predicted transfer functions across the plurality of listening positions.

92. (Original) The machine readable medium of claim 81, where the statistical analysis is selected from the group consisting of mean spatial variance, mean spatial standard deviation, mean spatial envelope, and mean spatial maximum average.

93. (Original) The machine readable medium of claim 81, where the statistical analysis comprises mean spatial variance

94. (Original) The machine readable medium of claim 81, where the statistical analysis indicates how much equalization is necessary for the predicted transfer functions.

95. (Original) The machine readable medium of claim 81, where the statistical analysis is selected from the group consisting of variance of spatial average, standard deviation of the spatial average, envelope of the spatial average, and variance of the spatial minimum.

96. (Previously Presented) The machine readable medium of claim 81, where the statistical analysis indicates differences in overall sound pressure level among the plurality of listening positions for the predicted transfer functions.

97. (Original) The machine readable medium of claim 81, where the statistical analysis is selected from the group consisting of variance of mean levels, standard deviation of mean levels, envelope of mean levels, and maximum average of mean levels.

98. (Previously Presented) The machine readable medium of claim 81, where the statistical analysis indicates efficiency of the predicted transfer functions at the plurality of listening positions.

99. (Original) The machine readable medium of claim 81, where the statistical analysis comprises acoustic efficiency.

100. (Original) The machine readable medium of claim 81, where the statistical analysis comprises mean overall level.

101. (Original) The machine readable medium of claim 81, further comprising instructions for recommending at least one of the potential configurations.

102. (Original) The machine readable medium of claim 101, where a plurality of statistical analyses are performed; and

where the instructions for recommending at least one of the potential configurations is based on weighting the plurality of statistical analyses.

103. (Original) The machine readable medium of claim 101, where the instructions for the statistical analysis ranks the predicted transfer functions based on at least one metric, and

where the instructions for recommending a configuration comprise recommending a configuration based on ranking the at least one metric.

104. (Original) The machine readable medium of claim 103, where the instructions for recommending a configuration based on the ranking comprise instructions for recommending an optimal value based on a highest ranked predicted transfer function.

105. (Canceled)

106. (Canceled)

107. (Previously Presented) In an audio system comprising at least one loudspeaker and a plurality of listening positions, a system for analyzing potential configurations comprising:

means for storing transfer functions recorded at a plurality of listening positions where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measures of an acoustical aspect of the frequency response;

means for determining potential configurations for the audio system;

means for modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at least two of the plurality of listening positions, the predicted transfer functions representing simulations for the potential configurations of the audio system;

means for accessing a criterion by which to statistically analyze the predicted transfer functions; and

means for statistically analyzing the predicted transfer functions using the criterion at the at least two of the plurality of listening positions.

108. (Original) The system of claim 107, where means for recording potential configurations for the audio system comprises means for recording parameters for the configurations, the parameters selected from the group consisting of positions of the loudspeakers, number of loudspeakers, types of loudspeakers, and correction factors.

109. (Previously Presented) The system of claim 107, where means for statistically analyzing comprises means for analyzing the predicted transfer functions across the plurality of listening positions.

110. (Original) The system of claim 109, where means for statistically analyzing comprises means for calculating the mean spatial variance.

111. (Previously Presented) In an audio system comprising at least one loudspeaker and a plurality of listening positions, a system for analyzing potential configurations comprising:

storage means for storing transfer functions recorded at the plurality of listening positions, where the transfer functions includes either or both an amplitude component or a phase component and where the transfer function is a measure of an acoustical aspect of the frequency response; and

processor means for determining potential configurations for the audio system, for modifying the transfer functions based on the potential configurations so that predicted transfer functions are generated at each of the plurality of listening positions, the predicted transfer functions representing simulations for the potential configurations of the audio system for accessing a criterion by which to statistically analyze the predicted transfer functions, and for statistically analyzing the predicted transfer functions using the criterion.

112. (Original) The system of claim 111, where the processor means further recommends at least one of the potential configurations based on the statistical analysis.

113. (Original) The system of claim 111, where the statistical analysis is across at least one frequency of the predicted transfer functions.

114. (Canceled)

115. (Canceled)

116. (Canceled)

117. (Previously Presented) The audio system of claim 1, wherein statistically analyzing the predicted transfer functions at the plurality of listening positions comprises:

analyzing for a first configuration a first predicted transfer function at a first listening position and a second predicted transfer function at a second listening position for the criterion; and

analyzing for a second configuration a third predicted transfer function at the first listening position and a fourth predicted transfer function at the second listening position for the criterion; and

wherein selecting a configuration based on the statistical analysis comprises selecting one of the first configuration or second configuration based on the analysis of the criterion for the first configuration and second configuration.

118. (Previously Presented) The audio system of claim 117, wherein the criterion comprises flatness of the predicted transfer functions.

119. (Previously Presented) The method of claim 27, wherein statistically analyzing the predicted transfer functions at the at least two of the plurality of listening positions comprises:

analyzing for a first configuration a first predicted transfer function at a first listening position and a second predicted transfer function at a second listening position for the criterion; and

analyzing for a second configuration a third predicted transfer function at the first listening position and a fourth predicted transfer function at the second listening position for the criterion; and

wherein selecting a configuration based on the statistical analysis comprises selecting one of the first configuration or second configuration based on the analysis of the criterion for the first configuration and second configuration.

120. (Previously Presented) The method of claim 119, wherein the criterion comprises flatness of the predicted transfer functions.

121. (Previously Presented) The audio system of claim 1, where the criterion is selected from the group consisting of flatness, consistency, efficiency, and smoothness.

122. (Previously Presented) The audio system of claim 1, where the statistical analysis comprises variance across the at least two of the plurality of listening positions.

123. (Previously Presented) The audio system of claim 122, where the variance comprises spatial variance across the at least two of the plurality of listening positions.

124. (Previously Presented) The machine readable medium of claim 15, where the criterion is selected from the group consisting of flatness, consistency, efficiency, and smoothness.

125. (Previously Presented) The machine readable medium of claim 15, where the statistical analysis comprises variance across the at least two of the plurality of listening positions.

126. (Previously Presented) The machine readable medium of claim 125, where the variance comprises spatial variance across the at least two of the plurality of listening positions.

127. (Previously Presented) The method of claim 27, where the criterion is selected from the group consisting of flatness, consistency, efficiency, and smoothness.

128. (Previously Presented) The method of claim 27, where the statistical analysis comprises variance across the at least two of the plurality of listening positions.

129. (Previously Presented) The method of claim 128, where the variance comprises spatial variance across the at least two of the plurality of listening positions.

130. (Previously Presented) The machine readable medium of claim 81, where the criterion is selected from the group consisting of flatness, consistency, efficiency, and smoothness.

131. (Previously Presented) The machine readable medium of claim 81, where the statistical analysis comprises variance across the at least two of the plurality of listening positions.

132. (Previously Presented) The machine readable medium of claim 131, where the variance comprises spatial variance across the at least two of the plurality of listening positions.

133. (Previously Presented) The system of claim 107, where the criterion is selected from the group consisting of flatness, consistency, efficiency, and smoothness.

134. (Previously Presented) The system of claim 107, where the means for statistical analysis comprises means for analyzing variance across the at least two of the plurality of listening positions.

135. (Previously Presented) The system of claim 134, where the means for analyzing variance comprises means for analyzing spatial variance across the at least two of the plurality of listening positions.